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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,767	09/27/2001	Pieter Theunis de Leeuw	9424.161US01	3418

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EXAMINER
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LEO, LEONARD R

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

**Office Action Summary**

Application No.

09/965,767

Applicant(s)

DE LEEUW, PIETER THEUNIS

Examiner

Leonard R. Leo

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,4,6,8,9,11,12 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,4,6,8,9,11,12 and 14-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 6, 2005 has been entered.

Claims 2, 4, 6, 8-9, 11-12 and 14-23 are pending.

### *Claim Objections*

Claim 15 is objected to because of the following informalities: *cylindrical* cross-section. A cross-section is a projection onto a plane and cannot be three dimensional. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 8, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (2,110,024 or 2,608,388) or Dawson in view of Belleli.

Miller (2,110,024 or 2,608,388) or Dawson discloses all the claimed limitations except a plug with a clamping member.

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Belleli discloses a heat exchanger comprising a shell 4 having an inlet 30 and outlet 34; a tube plate 2, 3 having a back face 2b, 3a and top face 2a, 3b, respectively, with a plurality of tube bore 42 and bore 43 having a constant diameter segment larger than a second diameter segment (Figure 8), both bores being fluidly connected to a nest of tubes 20 and a connecting channel 5, 6, respectively; and plugs having a body part 45 attached to clamping member 47 for the purpose of providing a fluid tight seal.

Since Miller (2,110,024 or 2,608,388) or Dawson and Belleli are both from the same field of endeavor and/or analogous art, the purpose disclosed by Belleli would have been recognized in the pertinent art of Miller (2,110,024) or Miller (2,608,388).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Miller (2,110,024 or 2,608,388) or Dawson a clamping member for the purpose of providing a fluid tight seal as recognized by Belleli.

Regarding claims 8 and 14, Belleli (Figure 8) discloses threads 46.

Regarding claim 12, Belleli (Figure 8) discloses body part 45 has an open and closed end.

Claims 9, 11 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (2,110,024) or Miller (2,608,388) in view of Kipp.

The device of Miller (2,110,024) or Miller (2,608,388) lacks a plug with a clamping member.

Kipp discloses a plug comprising a body part 1 having a bore, a rod 7 extending through the entire portion of the bore to couple clamping member 6 and sealing ring 11 on the body part for the purpose of providing a fluid tight seal.

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Since Miller (2,110,024) or Miller (2,608,388) and Kipp are both from the same field of endeavor and/or analogous art, the purpose disclosed by Kipp would have been recognized in the pertinent art of Miller (2,110,024) or Miller (2,608,388).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Miller (2,110,024) or Miller (2,608,388) a clamping member for the purpose of providing a fluid tight seal as recognized by Kipp.

Regarding claim 11, both Miller (2,110,024) or Miller (2,608,388) and Kipp disclose threaded bores and plugs.

Regarding claim 21, Kipp discloses support members 12, 13.

Claims 2, 4 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (2,110,024) or Miller (2,608,388) in view of Kipp as applied to claims 9, 11 and 20-21 above, and further in view of Dawson.

The combined teachings of Miller (2,110,024) or Miller (2,608,388) and Kipp lack a connecting channel having a circular cross-section.

Dawson discloses a heat exchanger comprising a shell 1 having an inlet 4 and outlet 6; a tube plate 3 having bores 9 extending from a back face to a top face and being fluidly connected to a nest of tubes 2 and connecting channel 7; removable access plugs 10 (column 3, lines 15-24); wherein the connecting channel is circular in cross-section for the purpose of providing improved pressure resistance (column 3, lines 29-31).

Since Miller (2,110,024) or Miller (2,608,388) and Dawson are both from the same field of endeavor and/or analogous art, the purpose disclosed by Dawson would have been recognized in the pertinent art of Miller (2,110,024) or Miller (2,608,388).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Miller (2,110,024) or Miller (2,608,388) a circular cross-section connecting channel for the purpose of providing improved pressure resistance as recognized by Dawson.

Regarding claim 17, Kipp discloses support members 12, 13.

Claims 2, 4, 9, 11, 15-17 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dawson in view of Kipp.

Dawson discloses all the claimed limitations except a plug with a clamping member.

Kipp discloses a plug comprising a body part 1 having a bore, a rod 7 extending through the entire portion of the bore to couple clamping member 6 and sealing ring 11 on the body part for the purpose of providing a fluid tight seal.

Since Dawson and Kipp are both from the same field of endeavor and/or analogous art, the purpose disclosed by Kipp would have been recognized in the pertinent art of Dawson.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Dawson a clamping member for the purpose of retaining sealing ring on the body part as recognized by Kipp.

Regarding claims 4 and 8, Kipp discloses threaded bores and plugs.

Regarding claims 17 and 21, Kipp discloses support members 12, 13

***Allowable Subject Matter***

Claims 18-19 and 2-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

The claim objection in the previous Office action is withdrawn.

Applicant's arguments have been fully considered but they are not persuasive.

The Examiner disagrees that Kipp is unrelated and nonanalogous with Miller. One of ordinary skill in the art concerned with providing a fluid tight removable seal would look toward Kipp as a teaching.

The remaining arguments are directed toward features as amended, not as previously claimed. The new grounds of rejection is deemed to address those concerns.

No further comments are deemed necessary at this time.

***Conclusion***

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard R. Leo whose telephone number is (571) 272-4916. The examiner can normally be reached on Monday thru Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (571) 272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



LEONARD R. LEO  
PRIMARY EXAMINER  
ART UNIT 3753

May 13, 2005